

Appln No. 09/603,834
Amdt date August 3, 2004
Reply to Office action of May 5, 2004

REMARKS/ARGUMENTS

The above identified patent application has been amended. Entry of the amendment and reconsideration and reexamination are hereby requested.

Claims 2 - 5, 7 and 9 - 23 are now in the application. Claims 1, 6 and 8 have been previously cancelled. Claims 21 and 23 have been amended.

The Examiner has rejected under 35 U.S.C. §103: Claims 2 - 4, 7, 9 - 17 and 19 - 23 as being unpatentable over Nappholz et al. in view of de Coriolis, Claim 5 as being unpatentable over Nappholz et al. in view of de Coriolis and further in view of Fountain et al., and Claim 18 as being unpatentable over Nappholz et al. in view of de Coriolis and further in view of Wyborny et al.

The Applicants' amended independent Claim 21 calls for (underlining added for emphasis) ... the first transmitter/receiver unit beginning data transmission by sending a triggering signal to the second transmitter/receiver unit at the end of a first pre-determined time interval during which the first transmitter/receiver unit is turned off; ... wherein a first acknowledgment is sent by the second transmitter/receiver unit to the first transmitter/receiver unit upon receipt of the triggering signal, the first acknowledgment including: ... a second item of control information for control of the first transmitter/receiver unit such that, in the event of lack of plausibility of the data transmitted, the second item of control information includes a first control signal for triggering a

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renewed transmission of data by the first transmitter/receiver unit.

The Applicants' amended independent Claim 23 calls for (underlining added for emphasis) ... beginning data transmission with a triggering signal sent by the first transmitter/receiver unit to the second transmitter/receiver unit at the end of a first pre-determined time interval during which the first transmitter receiver unit is turned off; ... sending a first acknowledgment by the second transmitter/receiver unit to the first transmitter/receiver unit upon receipt of the triggering signal; wherein the first acknowledgment includes: ... a second item of control information for control of the first transmitter/receiver unit such that, in the event of lack of plausibility of the data transmitted, the second item of control information includes a first control signal for triggering a renewed transmission of data by the first transmitter/receiver unit.

The Applicants submit that the invention as claimed in Claims 21 or 23 is neither taught, described or suggested in Nappholz et al., even in view of de Coriolis.

The Examiner points out that Nappholz et al., referring to at Column 21, lines 31 - 43, teaches that data communications can be initiated by the implant. However, such data communications is not at the end of a pre-determined time interval during which the first transmitter receiver unit is turned off. As pointed out in Nappholz et al. at Column 21, lines 33 - 39, "The implantable AECG monitor compresses and stores data until its memory (for example, 64Kbytes) is full. Storage time is on the order of ten minutes. When the memory is

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full, the implantable AECG monitor sends a control signal to the full disclosure recorder to signal the beginning of data transmission." As such, the compressing and storing of data does not provide for the implantable AECG monitor being turned off prior to its beginning data transmission with a triggering signal, as claimed in the present invention.

Further, this aspect of the claimed present invention is also significant with regard to de Coriolis. In accordance with the present invention the transmitter/receiver of the implant (first transmitter/receiver) remains totally switched off during the first time interval. Only at the beginning of the second time interval the first transmitter/receiver sends an outbound data packet which eventually is received by the external device's transmitter/receiver and is checked for plausibility by the external device. Thereupon, the external device sends an acknowledgement signal to the implant's transmitter/receiver containing a control signal to control maintenance of the reception readiness of the implant's transmitter/receiver. Should the plausibility check of the first signal sent from the implant to the external device reveal a lack of plausibility, a second control signal sent from the external device to the implant shall trigger a new transmission of the first (triggering) signal from the implant to the external device.

However, according to de Coriolis any communication is initiated by a command transmitted by an external programmer. This requires that the telemetric means of the cardiac device has to stay in a partially active state the whole time in order to receive an initiation signal.

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Also, the first signal transmitted according to the present invention is an outbound data packet, whereas with the de Coriolis device the first signal sent is an initiation command transmitted by the external programmer. According to de Coriolis an initiation code sent by the external device is received by the partially active receiver of the implant and causes a wake up of the implant's transmitter/receiver. The implant thereupon sends out a response signal which is received by the external device. Only then does the external device send a command to the implant which causes a stay awake signal which can be compared to the first item of control information. However, it should be noted, that the stay awake signal is not sent with the first signal from the external device to the implant (which would be the initiation signal) but with the second signal sent from the external device to the implant after the external device has received a response signal (corresponding to an acknowledgement) from the implant. As such, it can be seen that the triggering signal for a data transmission according to de Coriolis is the initiation signal sent by the external device. Therefore, according to de Coriolis, any data transmission is initiated by the external device, not by the implant.

Further, while de Coriolis teaches carrying out a first plausibility check in the external device based on the frame check 66 and the outbound data packet, de Coriolis does not teach to initiate a renewed transmission of the outbound data packet if the plausibility check fails. In the case where a framing error occurs the external device attempts to recover framing by looking for the next preamble (see column 12, line 40 to 42).

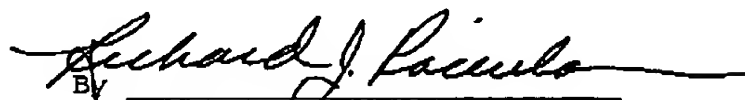
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Accordingly, in view of the above-described characteristics of the Nappholz et al. and de Coriolis references, the Applicants submit that there is no suggestion to combine the references and result in the invention as claimed. Therefore, the Applicants submit that Claims 21 and 23 should not be deemed unpatentable over Nappholz et al. in view of de Coriolis.

Claim 22 is dependent on Claim 21. Claims 2 - 5, 7, 9 - 22 are dependent of Claim 23. As such, these claims are believed allowable based upon Claims 21 and 23 respectively.

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Entry of the Amendment and reconsideration and reexamination of the above Application is requested.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP


By Richard J. Paciulan
Reg. No. 28,248
626/795-9900

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